



Forsyth County MSWL **December 12, 2007**

Introduction

The Georgia Division of Public Health (GDPH) responded to a resident's request to evaluate potential exposure to cis-1, 2-dichloroethene (cis-DCE) detected in a domestic well southwest of the Hightower Road Municipal Landfill in Forsyth County, Georgia. Residents living on a farm southwest of the landfill have several wells and natural springs on their property that have been sporadically contaminated by site-related contaminants in the past.

Environmental Sampling/Results

In December 2006, cis-DCE was detected in a residents' potable domestic well below regulatory levels. Forsyth County requested that the resident install a pre-home drinking water filtration system, which was installed in early March 2007. Water samples were taken before and after the filtration system was installed and it was deemed inadequate. The filtration system was subsequently replaced in late March 2007. Sampling results in April 2007, along with more recent sampling results, show that the replacement filtration system is adequately removing contaminants.

Exposure to 10 parts per billion (ppb) of cis-DCE may have occurred through drinking, breathing, or skin contact of household residents over a four month period from December 2006 through March 2007. However, the exposure level was well below health-based screening comparison values (CVs) of 3000 ppb for a child and 10,000 ppb for an adult, which are considered to be safe and protective of human health if ingested, inhaled, or absorbed through the skin. Therefore, further toxicological evaluation was not conducted.

It should be noted that methylene chloride was also found above CVs in the resident's drinking well in April 1999, May 2001, and November 2005 but was not detected in subsequent analyses. The highest concentration of methylene chloride found was 6.7 ppb; far below levels known to cause adverse health effects. Moreover, exposure to methylene chloride occurred for very brief periods as described by the sampling data. Therefore, GDPH concludes that adverse health effects are not expected from this exposure.

Conclusions

This site poses ***no apparent public health hazard***. Specifically:

- Based on available data, the residents are not being exposed to cis-DCE; their filtration system is adequate and protective of human health. Additionally, although residents were exposed to cis-DCE in the past, the levels they were exposed to are not at levels of health concern.
- Although residents were exposed in the past to methylene chloride at levels above a CV, adverse health effects are not expected to occur because the exposure is far below levels known to cause adverse

Recommendations

Based on available information, GDPH recommends that:

- The resident continues to use a filtration system on the domestic well in use at the time of inquiry.
- The resident maintains the filtration system per manufacturer specifications.
- Forsyth County continues to conduct sampling and analysis of the resident's domestic well water to ensure that the installed filtration system is working.